

### **Remarks**

The Applicants note the Examiner's comment with respect to checking the Specification for errors. The Applicants have amended the Specification and the Abstract to place them into final condition for allowance.

The Applicants have amended Claim 1 to include the subject matter of Claims 3 and 4. Claims 3 and 4 have been cancelled. Claims 5 – 10, 13, 14, 16 and 20 have been amended in view of the cancellation of Claim 3.

Similarly, Claim 50 has been amended to include the subject matter of Claims 52 and 53. Claims 52 and 53 have accordingly been cancelled.

Claims 54 – 59, 62, 63 and 65 have been amended to depend from Claim 50 in view of the cancellation of Claim 52. Entry of the amendments and cancellations into the Official File is respectfully requested.

Claims 1 and 50 stand rejected under 35 USC §102 as being anticipated by Freeman. The Applicants note with appreciation the Examiner's comments hypothetically applying Freeman to those claims. However, the Applicants respectfully submit that the rejection is moot inasmuch as Claim 1 now includes the subject matter of Claims 3 and 4 and Claim 50 now contains the subject matter of Claims 52 and 53. Withdrawal of the rejection is respectfully requested.

Claims 1, 3, 10, 11, 50, 52, 59, 60 and 62 stand rejected under 35 USC §102 as being anticipated by Hettinga. The Applicants again note with appreciation the Examiner's comments hypothetically applying Hettinga against those claims. However, the Applicants note that the rejection with respect to Claims 3 and 52 is moot in view of their cancellation. Also, the Applicants respectfully submit that the rejection is now moot with respect to Claims 1, 10, 11, 50, 59, 60 and 62 inasmuch as independent Claims 1 and 50 now contain the subject matter of Claims 4 and 53,

respectively. Withdrawal of the rejection is respectfully requested.

Claims 2, 9, 51 and 58 stand rejected under 35 USC § 103 as being obvious over the hypothetical combination of Cushman with Hettinga. The Applicants note with Appreciation the Examiner's comments hypothetically applying that combination against those claims. The Applicants nonetheless respectfully submit that the rejection is now moot inasmuch as independent Claims 1 and 50 now contain the subject matter of Claims 3 and 4 on the one hand and 52 and 53 on the other hand. Thus, even if one skilled in the art were to hypothetically combine Cushman with Hettinga, the results from that combination would still fail to disclose, teach or suggest the subject matter of Claims 2, 9, 51 and 58. Withdrawal of the rejection is respectfully requested.

Claims 4, 5, 53 and 54 stand rejected under 35 USC §103 over the hypothetical combination of Seemann with Hettinga. The Applicants note with appreciation the Examiner's comments hypothetically applying that combination against Claims 4, 5, 53 and 54. The Applicants respectfully submit that the rejection is now moot with respect to cancelled Claims 4 and 53. However, the Applicants will address the combination with respect to not only Claims 4 and 53, but also independent Claims 1 and 50.

The Applicants, by using an intermediate member, obtain a particular advantage wherein "the resin, first, flows quickly in a direction along the surface of the intermediate plate 3, and the resin is delivered over a wide area. Then, because the resin is injected into reinforcing fiber substrate 9 substantially almost simultaneously from a plurality of positions through a plurality of through holes 6 provided appropriately, the resin is being well impregnated quickly into the reinforcing fiber substrate 9 over a wide area of the substrate 9. ...the time for resin injection and impregnation is greatly shortened to 1/10 or less of a conventional time," (paragraph [0084]).

In Hettinga, an intermediate member (block 18) provided with a plurality of through holes (multiple pathways) is disclosed. However, Hettinga relates to molding employing injection molding, and resides in a technical field completely different from the field of RTM molding wherein a part of injected resin is discharged as excessive resin.

Claims 1, 5, 50 and 54 relate to an RTM molding wherein, after the mold is clamped, a liquid resin is injected into the mold, and the resin is heated and cured as disclosed in paragraph [0002], and address the conventional problem in that, in an RTM molding of a large product, ...gelation of resin progresses (resin viscosity increases) during resin flowing, and there occurs a case where the resin does not flow over the entire area of a product to be molded as disclosed in paragraph [0003], an advantage can be obtained wherein shortening of the time of resin impregnation can be realized and non-impregnated portion does not occur.

Further, although the rejection observes that, in Hettinga (in particular, Figs. 4 and 5), there is a description as to discharge groove for discharging injected resin, in the mold for injection molding which does not discharge resin, it is considered that there is not a groove for discharging injected resin as in Claims 1, 5, 50 and 54.

In Seemann, an RTM molding method with vacuum suction and a groove (24) for the vacuum suction is disclosed. However, even though Seemann employs vacuum suction, it is difficult for one skilled in the art to provide a groove to a mold for injection molding as disclosed in Hettinga. Further, because there is neither a description nor suggestion with respect to a concrete structure of the Seemann mold, it is not obvious for one skilled in the art to combined Seemann with Hettinga.

Thus, the Applicants respectfully submit that, since Seemann fails to provide any disclosure with respect to an actual structure of a Seemann mold, there are insufficient teachings for one skilled in the art to make a combination with Hettinga that would or could result in the subject matter of

Claims 1, 5, 50 and 54. Withdrawal of the rejection is respectfully requested.

Claims 6, 7, 8, 12, 55, 56, 57 and 61 stand rejected under 35 USC §103 as being obvious over Hettinga. The Applicants respectfully submit that this rejection is moot in view of the incorporation of the subject matter of Claims 3 and 4 with Claim 1 and Claims 52 and 53 with Claim 50. Thus, the Applicants respectfully request that the rejection be withdrawn.

Claims 14 and 63 stand rejected under 35 USC §103 as being obvious over the hypothetical combination of Waldrop with Hettinga. The Applicants respectfully submit that this rejection is now moot in view of the inclusion of the subject matter of Claims 3 and 4 into Claim 1 and Claims 52 and 53 into Claim 50. Withdrawal of the rejection is respectfully requested.

Claims 15 and 64 stand rejected under 35 USC §103 over the further hypothetical combination of Cundiff with Waldrop and Hettinga. The Applicants respectfully submit that this rejection is also moot in view of the addition of the subject matter of Claims 3 and 4 with Claim 1 and the subject matter of Claims 52 and 53 with Claim 50. Withdrawal of the rejection is respectfully requested.

Claim 13 stands rejected under 35 USC §103 over the hypothetical combination of Foster with Hettinga. The Applicants respectfully submit that this rejection is now moot in view of the inclusion of the subject matter of Claims 3 and 4 into Claim 1. Withdrawal of the rejection is respectfully requested.

Claims 18, 19, 67, 68 and 69 stand rejected under 35 USC §103 as being obvious over the further hypothetical combination of Cushman with Hettinga. The Applicants respectfully submit that this rejection is also moot in view of the incorporation of the subject matter of Claims 3 and 4 into Claim 1 and Claims 52 and 53 into Claim 50. Withdrawal of the rejection is respectfully requested.

Claims 20 – 23 stand rejected under 35 USC §103 over the hypothetical combination of Freitas with Hettinga. The Applicants respectfully submit that this rejection is also now moot in view of the incorporation of the subject matter of Claims 3 and 4 into Claim 1. Withdrawal of the rejection is respectfully requested.

In light of the foregoing, the Applicants respectfully submit that the entire Application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,



T. Daniel Christenbury  
Reg. No. 31,750  
Attorney for Applicants

TDC/lh  
(215) 656-3381